



LEAD THE REVOLUTION

IF WE WANT A REAL DIGITAL EDUCATION REVOLUTION THAT AMOUNTS TO MORE THAN BUNGING NETBOOK COMPUTERS ON DESKS, WE NEED TO ENLIST OUR MOST UNDERTAPPED RESOURCE, OUR STUDENTS. SAYS CHRIS WATERMAN

The Commonwealth government of Prime Minister Kevin Rudd is rather fond, it seems, of calling its major educational initiatives revolutions: there's the Education Revolution, the Building the Education Revolution and the Digital Education Revolution. The national curriculum, for some reason, appears not to be revolutionary. You might wonder why, but I wonder whether the Digital Education Revolution, more commonly called the netbooks for Years 9 to 12 program, is actually a program or even

moderately thought through project. Certainly revolution it is not; revolutions start from ground level and work up energy in a flurry of demands or requirements that bring about radical change usually in some bloody mess. Our Digital Education Revolution is quite a different thing altogether, being mandated from on high, with netbook computers – laptops for web browsing – being handed down only to effect disarray, confusion and, maybe, no valuable change for the intended target – our students.

We all know there's insufficient support, inadequate planning and no time to do it right. We also know there's much more to making a digital education revolution than simply handing out netbook computers to teachers and all the kids in Years 9 to 12. Is there a way around these obvious and quite real problems to enable us to make this a real digital education revolution? I think so, maybe not on a global scale, but certainly at the small, local, people-power level for you and the students in your classroom.



There are some shining exemplars of good digital education and some teachers are doing the most remarkable things with their classes, but in bringing real digital education to our classrooms the majority of us occupying that larger bit of the bell curve can expect to face mistakes. In fact let's hope so, since mistakes are the most productive time to learn anything. There are going to be disruptions to our regular and already overworked lives. There are going to be breakages, breakdowns, breakouts, breakthroughs and maybe even some break dancing – all that comes with growth. So how might we make some progress, and get some professional and personal growth and satisfaction out of the mess?

We need to enlist the resource we have the most of, the currently undertapped one: students themselves.

That students are digital natives has proven largely to be a major furphy. They typically have less of a clue than we digital immigrants, but what they do have is the 'no fear' approach to technology, much more time than us, razor sharp focus on things that catch their interest and imagination, and a tolerance of our shortcomings that we rarely give them credit for.

One of the tenets of a digital education is collaboration. There's no reason this can't start right from the opening of the box. Don't have enough technology support staff? You could let the computers languish in their boxes in the corner or get the soon-to-be owners to open them. Use the exercise to establish ownership. Use the asset logging as an educational process.

Now comes the really tough bit: how to get value out of being computerised or, put otherwise, how to establish digital literacy and turn each of your students into successful digital citizens. What's about to follow is neither an exhaustive nor a definitive list, but simply a few key features that we should start to promote and that will be useful transferable skills that are not specific to key learning areas, and so genuinely useful across curricula. There's no proposal here to teach you how to teach your subject, just

some ideas on how to make sensible users out of your newly netbooked students, and with that become better members of your class, and more self-sufficient students of your subject.

Research skills

Understanding and exploring the wealth of information now readily available at an internet connected student's fingertips, requires research skills: the capacity to gather appropriate information, to manage that information in sensible ways, to be discriminating of sources, to verify against alternative sources and not to be overwhelmed by too much or wrong information.

The unenlightened equate this with Googling. They are so wrong. That's only about one-tenth of what our students need to know. Our supposed digital natives will know about Google, but rarely progress past a single word search, then simply hope or assume that the first entry of the umpteen million responses in some way matches what they are looking for. With some instruction on how to do this better, Google can be an astonishing resource.

Develop in them the language of search, encourage the use of quotation marks, get them to understand the basics of searching using the principles of Boolean logic using 'or,' 'and' and 'not,' and find out about the way Google does things. Check out the concept of stemming for instance, and, without question, use Google Directory and not the main page. The main idea is to teach our students to search by stating very explicitly what they want.

Is Google all there is? It's not even close. The nature of your research may suggest an alternative search engine is a better prospect.

If you have a genuine question, not just a collection of search terms, try ask.com – its algorithm is designed to interpret your question as if you'd asked another person. Need a straightforward answer to a simple question rather than umpteen options? Try Wolfram – www.wolframalpha.com – 'an

ambitious, long-term project to make all systematic knowledge immediately computable by anyone.' Still in its early days, it's designed to use built-in algorithms and a growing collection of data to compute a single right answer.

Digital citizenship

It's a brave new world out there and we're responsible for teaching our students to be good, successful citizens in that world. Failing to prepare them is failing them, so how do we give them skills that we may not have or are just developing ourselves? Given that all of this is important to us too, learning the ways of the internet together isn't so bad. Here's a sample of what's needed.

Various agencies report that around 70 per cent of all email is actually rubbish: scams, spams and pointless chain mails. No wonder most kids prefer SMS. Scams that get through filters look very real. Few of our students have the capacity to differentiate between a real bank site and the multitude of fake ones. Find out how to recognise them together. Use those cleverly worded chain emails to show your students that failing to forward them to 100 of their closest friends won't result in anyone being killing in the playground by a death ray beamed directly from ZandarossSeven. Don't forget the Nigerian diplomat, king or prince who needs your help moving funds out of the country, if only he can temporarily use your bank account, isn't really going to give you \$20 million.

Have you employed someone recently? We still might use written resumes, but we'll almost certainly accompany this use with some Googling – be sure to read the advice on searching above – but if someone Googled your students, would they find a positive image or not? I've found a great way to teach students about ways to protect their online identity is to get them to imagine they are agents, responsible for maintaining a celebrity's image. This helps them see that, even though it's a virtual world, their real life will be affected by what they put online.

Incorporate digital etiquette into all online activities. This goes well beyond NOT USING CAPITALS. Everyone knows this is shouting and is old hat. Ensure that those with more developed skills and more time online are considerate of internet newcomers or newbies, accept that patient and generous is best, and understand that everyone is new at some point. Teach your students that email isn't a substitute for handwritten letters, it's a new communication system with a new set of rules. Teach the value of TXTing, and how to strike a balance between leetspeak – like 'n00b' for newbie – and regular language. The fact that these are new communications systems doesn't mean manners go out the window, they just change a little and the emphasis on how to write shifts to accommodate.

Stress that cyberbullying, bullying someone using technology, is unacceptable. There are plenty of resources available to help you to address and reduce incidents of cyberbullying.

Technology management

Having netbooks in a school will bring about management issues, whether you're prepared for technology or not. Those batteries may not last the day; do your students know where they might recharge? Do they have a group within which they share a single power charger, or is everyone going to carry one? Are there sufficient powerpoints to accommodate everyone? Can students share a battery with peers who are better organised and happy to help until the end of the day?

It's a good idea to let your students find the solutions; let them become true owners, responsible for keeping powered up long enough to deal with the day. They can do it, so long as you support and trust them to.

How will your students be expected to protect their netbook from physical damage? How do they intend to keep it from being stolen? If something that drastic does happen, how are they protecting their work? Do they backup regularly and how do they

protect that backup? All these things might well be something your school has already addressed, but if you're one of the many that are not yet prepared, consider how much responsibility your students can take. By having high expectations of them and by making those expectations clear we might make them into responsible technology managers.

How often have you been browsing for information and got sidetracked? Searching for information can be a time consuming thing. Instead, make it come to you. The solution is RSS, Rich Site Summary or Really Simple Syndication. This simple concept starts with identifying valued sources of information, but rather than going back to them time after time to see if there's anything new, RSS brings new information directly to you, as soon as it's available. It's a little like a self-generating newspaper containing only the sort of article you are going to be interested in, which is perfect for time-strapped students looking to gather study notes from a variety of sources without having to constantly go out and find them.

Multimedia-savvy students present better assignments

When you give each student a netbook computer you put in their hands a multimedia machine, which means the quality of student assignments, projects and presentations can skyrocket. Teach your students to persuade, cajole, sell, influence, argue, inform, convince, instruct, share, entertain and generally make a presentation. With a wealth of possibilities at their fingertips, slides are now blasé. Use VoiceThread, Photo Story and Comic Life, record a podcast, construct an Animoto, use the available variety of options. Allow the more creative students free rein. Not all students will be able or interested, but let those who are lead the way and demonstrate possibilities.

Don't forget to incorporate other technologies that might be available. Most mobile phones are quite acceptable movie cameras, and short documentaries, adverts, exposés, dramas and the like are well within

the capacity of most students to produce. All netbooks come with editing software built in. It'll make your marking so much more interesting – and peer marking becomes a pleasure rather than a chore.

Remember the bell curve I mentioned at the beginning? Depending on where you might be on the bell curve, some of these things might seem a little simple, or a bit extreme. Your students and fellow teachers are also somewhere along that bell curve. Some might be on the far right and make you feel inadequate, some might be on the far left and make you feel justifiably proud of yourself.

Untapped resources

A final consideration – and this does take a little bravery – is that, sometimes, it's worth letting your students lead. Maybe take an afternoon occasionally and open your class to an expert, someone who has had the time to find out something that you might want to learn, someone who has had the need and the passions to expand their skill in a particular method or the use of software. None of us individually has the time or capacity that the collective of our classrooms have. I simply can't spend five hours a night collaborating with 30 other dragon fighters developing a multiflanked strategy requiring 25 different personalities and a range of skills to go with each. There might be someone in your class who can.

Okay, I'm pretty sure dragon fighting isn't in the syllabus, but many of the things your students learn and can do certainly are. Leverage their time, skill and capacity to learn. It's not relinquishing control; it's harnessing the abilities available to you. Share your skill in presenting and make a presenter out of them, use your management skills to keep your classes vibrant and interesting, and get innovative; you may even learn something on the way. **T**

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